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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/566,938 | 02/02/2006 | Richard Stone | AJF-2.204.0US | 1160 |

3624 7590 01/07/2009

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| EXAMINER | |
|---|---|
| PIZIALI, ANDREW T | |

| ART UNIT | PAPER NUMBER |
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| 1794 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/566,938 | STONE ET AL. | |
| | Examiner | Art Unit | |
| | Andrew T. Piziali | 1794 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *21 October 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1,2 and 6-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 6-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 February 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/18/2008 has been entered.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 2 and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4,921,750 to Todd in view of any one of USPN 4,376,013 to Wang or USPN 5,555,917 to Quigley.

Todd discloses a triple layer industrial fabric (as defined by applicant) having a paper side (PS) layer and a machine side (MS) layer comprising polymeric warp and weft yarns woven to a repeat pattern wherein: (i) all of the warp yarns are arranged as vertically stacked pairs; (ii) all of the weft yarns comprise pairs of intrinsic weft binder yarns each having a first and second member each of which contributes to the structure of both the PS and the MS layers of the fabric

and binds together the PS and MS layers; and (iii) the first and second members of each pair of the intrinsic weft binder yarns together form a single combined weft path in both the PS layer and the MS layer whereby when either the first or second member passes from the PS layer to the MS layer, the other member of the pair passes from the MS layer to the PS layer at an exchange point located between at least one common pair of warp yarns (see entire document including Figures 1-4 and column 1, lines 8-13).

The fabric of Figure 1 comprises a PS layer and a MS layer woven to a plain weave pattern. In addition, the examiner takes Official Notice that the plain weave pattern is one of the three fundamental weaves along with satin and twill. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the weave any suitable weave construction, such as a plain weave, because it is within the general skill of a worker in the art to select a known weave on the basis of its suitability and desired characteristics.

Todd is silent with regards to specific yarn materials, therefore, it would have been necessary and thus obvious to look to the prior art for conventional yarn materials. Wang provides this conventional teaching showing that it is known in the art to use polymeric material such as PET (see entire document including column 8, lines 19-65). Quigley also provides this conventional teaching showing that it is known in the art to use polymeric material such as polyetheretherketone (see entire document including column 2, lines 59-63). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the yarns from PET or polyetheretherketone motivated by the expectation of successfully practicing the invention of Todd and because it has been held to be within the general skill of a

worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claim 2, Todd discloses that the PS layer has an exposed PS surface and the MS layer has an exposed MS surface; and wherein (i) in a first portion of the repeat pattern, the first member is exposed in the PS surface over a number (N1) of PS warp yarns while the second member is exposed in the MS surface over a number (N2) of MS warp yarns; (ii) in a second portion of the repeat pattern the first member is exposed in the MS surface over a number (M1) of MS warp yarns while the second member is exposed in the PS surface over a number (M2) of PS warp yarns; and iii) relationships between values of N1, N2, M1 and M2 are selected from (a) the value of N1 is equal to the value of N2, and the value of M1 is equal to the value of M2; (b) the value of N1 is equal to the value of M2, and the value of N2 is equal to the value of M1; and (c) the values of each of N1, N2, M1 and M2 are equal (see Figures 2-4).

Regarding claim 6, for each unit area, viewed substantially perpendicularly to the PS surface of the PS layer or the MS surface of the MS layer, an open space projected through the fabric has an area in a range of 35% to 50% of the unit area (see Figures 2-4).

In the event that it is shown that Todd does not teach the claimed open space area with sufficient specificity, it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the open space area because it is understood by one of ordinary skill in the art that the open space area determines the amount of air that is allowed to travel through the fabric because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Regarding claims 7 and 8, the fabric has an air permeability in a range of 900 to 1100 CFM (column 4, lines 44-49).

Regarding claim 10, the PS surface of the PS layer of the fabric has a polymeric resinous coating (column 1, lines 23-45 and column 4, lines 57-65).

4. Claims 1, 2 and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4,921,750 to Todd in view of Applicant's Admission in view of anyone of USPN 4,376,013 to Wang or USPN 5,555,917 to Quigley.

Regarding claims 1-10, Todd discloses a triple layer industrial fabric (as defined by applicant) having a paper side (PS) layer and a machine side (MS) layer comprising polymeric warp and weft yarns woven to a repeat pattern wherein: (i) all of the warp yarns are arranged as vertically stacked pairs; (ii) all of the weft yarns comprise pairs of intrinsic weft binder yarns each having a first and second member each of which contributes to the structure of both the PS and the MS layers of the fabric and binds together the PS and MS layers; and (iii) the first and second members of each pair of the intrinsic weft binder yarns together form a single combined weft path in both the PS layer and the MS layer whereby when either the first or second member passes from the PS layer to the MS layer, the other member of the pair passes from the MS layer to the PS layer at an exchange point located between at least one common pair of warp yarns (see entire document including Figures 1-4 and column 1, lines 8-13).

The fabric of Figure 1 comprises a PS layer and a MS layer woven to a plain weave pattern. In addition, the applicant discloses that it is known in the prior art to weave a fabric according to a plain weave pattern to maximize the number of crimps per unit length of the warp yarn (page 3, line 20 to page 4, line 21). Therefore, it would have been obvious to one having

ordinary skill in the art at the time the invention was made to weave the fabric to a plain weave pattern, motivated by a desire to maximize the number of crimps per unit length of the warp yarn.

Todd is silent with regards to specific yarn materials, therefore, it would have been necessary and thus obvious to look to the prior art for conventional yarn materials. Wang provides this conventional teaching showing that it is known in the art to use polymeric material such as PET (see entire document including column 8, lines 19-65). Quigley also provides this conventional teaching showing that it is known in the art to use polymeric material such as polyetheretherketone (see entire document including column 2, lines 59-63). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the yarns from PET or polyetheretherketone motivated by the expectation of successfully practicing the invention of Todd and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claim 2, Todd discloses that the PS layer has an exposed PS surface and the MS layer has an exposed MS surface; and wherein (i) in a first portion of the repeat pattern, the first member is exposed in the PS surface over a number (N1) of PS warp yarns while the second member is exposed in the MS surface over a number (N2) of MS warp yarns; (ii) in a second portion of the repeat pattern the first member is exposed in the MS surface over a number (M1) of MS warp yarns while the second member is exposed in the PS surface over a number (M2) of PS warp yarns; and iii) relationships between values of N1, N2, M1 and M2 are selected from (a) the value of N1 is equal to the value of N2, and the value of M1 is equal to the value of M2; (b)

the value of N1 is equal to the value of M2, and the value of N2 is equal to the value of M1; and (c) the values of each of N1, N2, M1 and M2 are equal (see Figures 2-4).

Regarding claim 6, for each unit area, viewed substantially perpendicularly to the PS surface of the PS layer or the MS surface of the MS layer, an open space projected through the fabric has an area in a range of 35% to 50% of the unit area (see Figures 2-4).

In the event that it is shown that Todd does not teach the claimed open space area with sufficient specificity, it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the open space area because it is understood by one of ordinary skill in the art that the open space area determines the amount of air that is allowed to travel through the fabric because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Regarding claims 7 and 8, the fabric has an air permeability in a range of 900 to 1100 CFM (column 4, lines 44-49).

Regarding claim 10, the PS surface of the PS layer of the fabric has a polymeric resinous coating (column 1, lines 23-45 and column 4, lines 57-65).

### *Response to Arguments*

5. Applicant's arguments filed 8/18/2008 have been fully considered but they are not persuasive.

The applicant asserts that the applied prior art fails to teach or suggest that for each pair of the weft yarns, the first and second members of the pair follow complementary paths in which the two pair members define a single continuous weft yarn path in both the PS layer and the MS

layer whereby when either the first or second member passes from the PS layer to the MS layer, the other member of the pair passes from the MS layer to the PS layer at an exchange point located between at least one common pair of warp yarns. The examiner respectfully disagrees. Todd illustrates that when either the first or second member of a weft pair passes from the PS layer to the MS layer, the other member of the pair passes from the MS layer to the PS layer at an exchange point located between at least one common pair of warp yarns (see Figures 1-6, 8 and 9).

It is further noted that applicant did not traverse the examiner's assertion of official notice (plain weave pattern is one of the three fundamental weaves along with satin and twill). Therefore, the statement is taken to be admitted prior art.

## *Conclusion*

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew T Piziali/
Primary Examiner, Art Unit 1794